IN THE CLAIMS

Amendments to the Claims:

Please amend claims 3, 27-35, 40, 43, and 50, as follows.

The following listing of claims will replace all prior versions and listings of the claims in the application.

Following amendments, claims 1-50 will be pending in the application.

Listing of Claims:

1. (Original) A method for the prophylaxis or therapeutic treatment of an IL-10 deficiency-mediated disease in a mammalian patient, which method comprises:

administering to said patient an aliquot of blood which has been treated *ex vivo* with at least one stressor selected from the group consisting of an oxidative environment, thermal stress and UV light,

wherein the concentration of IL-10 secreted by immune cells in the blood or tissues of said patient is increased, with an associated reduction of harmful inflammatory effects of the IL-10 deficiency-mediated disease.

2. (Original) The method of Claim 1, wherein the oxidative environment comprises applying an oxidizing agent to the aliquot.

3. (Currently amended) The method of Claim 2, wherein the oxidative agent comprises ozone gas, and the ozone gas is introduced into the blood aliquot in an amount ~~which~~ that does not give rise to excessive levels of cell damage.

4. (Original) The method of Claim 2, wherein the oxidizing agent comprises a mixture of ozone gas and medical grade oxygen, the ozone gas being contained in the mixture in a concentration of up to about 300 μg/ml.

5. (Original) The method of Claim 4, wherein the ozone gas is contained in the mixture in a concentration of up to about 30 μg/ml.

6. (Original) The method of Claim 5, wherein the ozone gas is contained in the mixture in a concentration of from about 13.5 μg/ml to about 15.5 μg/ml.

7. (Original) The method of Claim 4, wherein the mixture is applied to the aliquot at a flow rate of up to about 0.33 litres/min.

8. (Original) The method of Claim 7, wherein the mixture is applied to the aliquot at a flow rate of from about 0.21 litres/min to about 0.27 litres/min.

9. (Original) The method of Claim 1, wherein the electromagnetic emission comprises ultraviolet light having one or more UV-C band wavelengths.

10. (Original) The method of Claim 1, wherein the temperature to which the aliquot is cooled or heated is a temperature which does not result in substantial hemolysis of the blood in the aliquot.

11. (Original) The method of Claim 1, wherein the temperature stressor is applied so that the temperature of at least part of the aliquot is in the range of from about -5° C to about 55° C.

12. (Original) The method of Claim 1, wherein the mean temperature of the blood in the aliquot is in the range of from about 37° C to about 44° C.

13. (Original) The method of Claim 1 , wherein the mean temperature of the blood in the aliquot is in the range of from about 0° C to about 36.5° C.

14. (Original) The method of Claim 1, wherein the mean temperature of the blood in the aliquot is in the range of from about 10° C to about 30° C.

15. (Original) The method of Claim 1, wherein the temperature is in the range of from about 37° C to about 55° C.

16. (Original) The method of Claim 15, wherein the temperature is 42.5 ± 1° C.

17. (Original) The method of Claim 1, wherein the volume of the aliquot is up to about 400 ml.

18. (Original) The method of Claim 17, wherein the volume of the aliquot is about 10 ml.

19. (Original) The method of Claim 17, wherein the volume of the aliquot is about 2 ml.

20. (Original) The method of Claim 1 , wherein the aliquot is subjected to the stressors for a period of up to about 60 minutes.

21. (Original) The method of Claim 20, wherein the aliquot is subjected to the stressors for a period of about 3 minutes.

22. (Original) The method of Claim 1, wherein the blood is administered to the mammal by a method suitable for vaccination selected from the group consisting of intra-arterial injection, intramuscular injection, intravenous injection, subcutaneous injection, intraperitoneal injection, and oral, nasal or rectal administration.

23. (Original) The method of Claim 1, wherein all of the stressors are simultaneously administered to the aliquot.

24. (Original) The method of Claim 1, wherein any two of the stressors are simultaneously administered to the aliquot.

25. (Original) The method of Claim 24 wherein the mammal is a human.

26. (Original) The method of Claim 25 wherein the IL-10 deficiency-mediated disease is pemphigus.

27. (Currently amended) The method of Claim 1 including the additional steps of:

(a) identifying a patient having an IL-10 deficiency-mediated disease condition, or ~~is~~ at risk of having an IL-10 deficiency-mediated disease condition, which has a significant inflammatory component;

(b) evaluating the patient identified in (a) ~~above~~ to determine whether that disease condition or risk of disease condition can be effectively treated by increasing the concentration of IL-10 in the patient; and

(c) if an increase in the concentration of IL-10 would be suitable for the prophylactic or therapeutic treatment of such a disease, then administering to said patient an aliquot of blood which has been treated *ex vivo* with at least one stressor selected from the group consisting of an oxidative environment, thermal stress and UV light.

28. (Currently amended) A method for the prophylactic or therapeutic treatment of inflammatory components and inflammatory aspects of an IL-10 deficiency-mediated disease in a mammalian patient, which method comprises:

(a) identifying a patient having an IL-10 deficiency-mediated disease condition, or ~~is~~ at risk of having an IL-10 deficiency-mediated disease condition, which has a significant inflammatory component;

(b) evaluating the patient identified in (a) ~~above~~ to determine whether that disease condition or risk of disease condition can be effectively treated by increasing the concentration of IL-10 in the patient; and

(c) if an increase in the concentration of IL-10 would be suitable for the prophylactic or therapeutic treatment of such a disease, then administering to said patient an aliquot of

blood which has been treated ex *vivo* with at least one stressor selected from the group consisting of an oxidative environment, thermal stress and UV light;

wherein the concentration of IL-10 secreted by immune cells in the blood or tissues of said patient is increased, with an associated reduction of harmful inflammatory effects of the IL-10 deficiency-mediated disease.

29. (Currently amended) A method for preventing or treating an IL-10 deficiency-associated disorder in a mammalian patient which method comprises (a) identifying a patient having an IL-10 deficiency-mediated disorder, which disorder is characterized by a decreased amount of IL-10 secretion; (b) evaluating the patient to determine whether ~~that~~ the disorder can be effectively treated by increasing the amount of IL-10 secretion; and (c) administering to the patient an effective amount of extracorporeally stressed blood to stimulate IL-10 secretion in the patient.

30. (Currently amended) A method for preventing or treating an IL-10 deficiency-mediated disorder in a mammalian patient, which method comprises (a) selecting a patient having an IL-10 deficiency-mediated disorder, which disorder is characterized by a decreased amount of IL-10 secretion; (b) evaluating the patient to determine whether that disorder can be effectively treated by stimulating IL-10 secreting cells; and (c) administering to the patient an effective amount of extracorporeally stressed blood to stimulate IL-10 secreting cells, thereby increasing the relative proportion of IL-10-secreting cells in the mammalian patient and stimulating the secretion of IL-10.

31. (Currently amended) A method for preventing or treating an IL-10 deficiency-mediated disorder in a mammalian patient, which method comprises (a) selecting a patient having an IL-10 deficiency-mediated disorder, which disorder is characterized by a decreased amount of IL-10 activity; (b) evaluating the patient to determine whether that disorder can be effectively treated by increasing the activity of IL-10 in the patient; and (c) administering to the patient an effective amount of extracorporeally stressed blood to increase IL-10 activity in the patient.

32. (Currently amended) The method according to Claim 29, 30 or 31, wherein the extracorporeally stressed blood is compatible whole blood or blood cells.

33. (Currently amended) The ~~process~~ method of Claim 32 wherein the extracorporeal stress is an oxidative stress.

34. (Currently amended) The ~~process~~ method of Claim 32 wherein the extracorporeal stress is UV radiation.

35. (Currently amended) The ~~process~~ method of Claim 32 wherein the extracorporeal stress comprises simultaneously applying oxidative stress and UV radiation.

36. (Original) A method for increasing IL-10 levels in the blood and/or tissues of a mammalian patient, which method comprises extracting an aliquot of the patient's blood, extracorporeally applying to at least the cellular portion of the aliquot at least one stressor selected from UV radiation and oxidative stress, and re-administering the resultant aliquot to the mammalian patient.

37. (Original) The method of Claim 36 wherein both the UV radiation stressor and the oxidative stressor are extracorporeally applied to the aliquot simultaneously.

38. (Original) The process of Claim 36 or 37 wherein the oxidative stress is bubbling of a mixture of medical grade oxygen and ozone through the aliquot.

39. (Original) A pharmaceutical composition for administration to a mammalian patient comprising patient-compatible IL-10 secretion-stimulating mammalian blood cells wherein the blood cells stimulate an increase in IL-10 levels in the blood and/or tissues of the mammalian patient when administered to the mammalian patient.

40. (Currently amended) The pharmaceutical composition of Claim 39 wherein the blood cells are extracorporeally stressed with at least one stressor selected from the group consisting of oxidative stress and ultraviolet radiation stress.

41. (Original) A process of alleviating the symptoms of, or prophylaxes of, an IL-10 deficiency-associated disorder in mammalian patient, which comprises *in vivo* stimulation of enhanced IL-10 secretions in the mammalian patient by application to the patient of IL-10 secretions stimulating extracorporeally stressed compatible whole blood or blood cells.

42. (Original) A process of alleviating the symptoms of, or prophylaxes of, an IL-10 deficiency-associated disease in a mammalian patient, which comprises *in vivo* increasing the number of relative proportion of IL-10-secreting cells in the mammalian patient and stimulating IL-10 secretion therefrom, by application to the patient of IL-10 cell enhancing extracorporeally stressed compatible whole blood or blood cells.

43. (Original) A process of alleviating the symptoms of, or prophylaxes of, an IL-10 deficiency-associated disorder in a mammalian patient, which comprises *in vivo* enhancing the activity of ~~IL-1~~ IL-10 in the mammalian patient's body by application to the patient of IL-10 activity increasing extracorporeally stressed compatible whole blood or blood cells.

44. (Original) The process of Claim 41,42 or 43 wherein the extracorporeal stress is an oxidative stress.

45. (Original) The process of Claim 41,42 or 43 wherein the extracorporeal stress is UV radiation.

46. (Original) The process of Claim 41,42 or 43 wherein the extracorporeal stress is a combination of oxidative stress and UV radiation, applied extracorporeally to the whole blood or cellular fraction thereof simultaneously.

47. (Original) A process of increasing IL-10 levels in the blood and/or tissues of a mammalian patient, which comprises extracting an aliquot of the patient's blood, extracorporeally applying to at least the cellular portion of the aliquot at least one stressor selected from UV radiation and oxidative stress, and re-administering the resultant aliquot to the mammalian patient.

48. (Original) The process of Claim 47 wherein both the UV radiation stressor and the oxidative stressor are extracorporeally applied to the aliquot simultaneously.

49. (Original) The process of Claim 47 or Claim 48 wherein the oxidative stress is bubbling of a mixture of medical grade oxygen and ozone through the aliquot.

50. (Currently amended) A biologically acceptable composition of matter for administration to a mammalian patient, said composition of matter comprising extracorporeally stressed compatible mammalian blood cells ~~which~~ that have been subjected to at least one ~~of~~ stress selected from oxidative stress and ultraviolet radiation stress, said composition of matter having the ability, upon administration to the mammalian patient, ~~of~~ ~~stimulating~~ to stimulate an increase in IL-10 levels in the blood and/or tissues of the mammalian patient.